

## **Amendments to the Claims**

This Listing of Claims replaces all prior versions, and listings, of claims in the present application.

### **Listing of Claims:**

1. (currently amended) A method for the bonding of disk-shaped substrates, the substrates comprising an essentially plane disk-shaped first substrate with a central opening and with a first bonding surface and a back surface opposite the first bonding surface, and an essentially plane disk-shaped second substrate with a central opening and with a second bonding surface to be bonded to the first bonding surface by a layer of adhesive, the method comprising the following steps:

- providing the first substrate and the second substrate,
- applying liquid adhesive to the first bonding surface or the second bonding surface or both,
- subsequently positioning, in a vacuum chamber, the first substrate and the second substrate with the second bonding surface facing the first bonding surface at a distance,
- subsequently elastically deforming the first substrate in such a way that the first bonding surface assumes a bent shape ~~and upholding the deformation by mechanical means acting on the first substrate,~~
- evacuating the vacuum chamber,
- moving the first substrate and the second substrate towards each other and establishing contact between them at an area of contact where adjacent edges of the first bonding surface and the second bonding surface touch, and upholding deformation of said first substrate by mechanical means acting thereon while said contact is being established,
- releasing the first substrate so as to allow it to assume its essentially plane configuration in such a way that the area of contact spreads essentially to the entire first and second bonding surfaces, and
- raising the pressure in the vacuum chamber to atmospheric pressure.

2. (currently amended) The method according to claim 1, characterized in that the first substrate is deformed in such a way that the first ~~contact~~bonding surface assumes a concave or convex shape which is upheld by central mechanical means acting on the first substrate in the vicinity of the central opening of the same and circumferential mechanical means acting on the first substrate at positions offset towards the outer edge of the said first substrate.

3. (currently amended) The method according to claim 2, characterized in that the central mechanical means exert on the first substrate a force directed away from the second substrate while the circumferential mechanical means exert on the first substrate a force directed towards the second substrate, upholding a deformation of the first substrate where the shape of the first contact surface is concave.

4. (previously presented) The method according to claim 3, characterized in that the central mechanical means comprise mechanical stop means acting against the first bonding surface and the circumferential mechanical means comprise mechanical stop means acting on the back surface of the first substrate.

5. (previously presented) The method according to claim 3, characterized in that, due to the elastic deformation of the first substrate, the area of the first bonding surface adjacent the central opening is offset from a plane intersecting the circumference of the first bonding surface by between 1 mm and 3 mm.

6. (currently amended) The method according to claim 3, characterized in that the initial area of contact is a narrow annulus, or a portion thereof, adjacent to the outer edges of the first bonding surface and the second bonding surface ~~or a subset thereof~~.

7. (currently amended) A method for the bonding of disk-shaped substrates, the substrates comprising an essentially plane disk-shaped first substrate with a central opening and with a first bonding surface and a back surface opposite the first bonding surface, and an essentially plane disk-shaped second substrate with a central opening and with a second bonding surface to be

bonded to the first bonding surface by a layer of adhesive, the method comprising the following steps:

- providing the first substrate and the second substrate,
- applying liquid adhesive to the first bonding surface or the second bonding surface or both,
- positioning, in a vacuum chamber, the first substrate and the second substrate with the second bonding surface facing the first bonding surface at a distance,
- elastically deforming the first substrate in such a way that the first bonding surface assumes a concave shape and upholding the deformation by mechanical means acting on the first substrate,
- evacuating the vacuum chamber,
- ~~The method of claim 6, characterized in that~~ holding the first substrate is held in a slightly-tilted position with respect to the second substrate while moving the first substrate and the second substrate towards each other to establish an area of contact between them ~~when contact is established~~, thereby assuring that the area of contact is at first restricted to a predefined sector of ~~the~~ an annulus adjacent the outer edges of the first bonding surface and the second bonding surface;
- releasing the first substrate so as to allow it to assume its essentially plane configuration in such a way that the area of contact spreads essentially to the entire first and second bonding surfaces, and
- raising the pressure in the vacuum chamber to atmospheric pressure.

8. (currently amended) The method according to claim 1, characterized in that the vacuum chamber is evacuated to a pressure of between 0.01 mbar and 100 mbar, ~~preferably between 0.05 mbar and 10 mbar and in particular between 0.1 mbar and 2 mbar.~~

9. (previously presented) The method according to claim 1, characterized in that the liquid adhesive is spread over the first bonding surface, the second bonding surface, or both by spinning the first substrate, the second substrate, or both, respectively.

Claims 10-17: (canceled)

18. (original) The method of claim 7, characterized in that the angle between the plane of the first substrate and the plane of the second substrate is at least  $1^{\circ}$  and not greater than  $3^{\circ}$ .

19. (previously presented) The method of claim 2, wherein the first substrate is deformed in such a way that the first contact surface assumes a concave shape.

20. (new) The method according to claim 8, said vacuum chamber being evacuated to a pressure of between 0.05 mbar and 10 mbar.

21. (new) The method according to claim 8, said vacuum chamber being evacuated to a pressure of between 0.1 mbar and 2 mbar.

22. (new) The method according to claim 1, wherein said area of contact is initially established adjacent outer edges of said first and second bonding surfaces.